APPLICATION GUIDELINES FOR INCREASING INDUSTRIAL EQUIPMENT IMMUNITY

TE-113786

System incompatibilities and their affects on industrial and commercial facilities have been well documented through hundreds of technical papers, presentations, and publication articles over the past ten years. The increasing use of electronics and power electronics-based equipment and the inattention to system compatibility between these equipment and the electrical environment has lead to significant financial loses for industrial and commercial facilities. In the US, the cost estimates associated with system incompatibilities range up to tens of millions of dollars each year.

In the past, these losses were accepted as part of the cost of operation. Today, as US and world markets become more and more competitive, companies need to be able to deliver their products at their highest quality and in a timely fashion. Consequently, all costs, from efficiency to downtime, are tracked and analyzed.

Voltage sags are by far the most frequent and most costly electromagnetic phenomena to affect electric power systems. The problems they create are particularly costly for industrial and commercial facilities. Utilities want to maintain customer loyalty and satisfaction. Therefore, responding to the needs of their customers becomes increasingly important for their future. As profit margins fall and competition increases, utilities will fmd themselves more and more in the business of resolving problems related to electrical disturbances and system compatibility issues.